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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,204	02/27/2007	Volkmar Stenzel	EISEN-004XX	5682
207 7590 03/05/2009 WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109			EXAMINER BRODIE, MARGARET	
			ART UNIT 4122	PAPER NUMBER
			MAIL DATE 03/05/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,204	Applicant(s) STENZEL ET AL.	
	Examiner MARGARET BRODIE	Art Unit 4122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/31/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/31/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 3/31/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Since the PCT/DO/EO/903 indicates that the search report references are not present, applicant must supply them. It has been placed in the application file, but the information referred to therein has not been considered.

1. Claims 10 and 17 provides for the use of a tool, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 10 and 17 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112: The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 3. Claims 1- 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject which the applicant regards as the invention.**

Instant claim 1 recites the limitation “the matrix executes a rolling movement between the roller and the layer.” There is insufficient antecedent basis for this limitation in the claim. The limitation in claim 1, "when the pressure roller passes over the surface it accompanies its movement and acts..." is unclear. The examiner is unclear as to what "it" and "its" is referring to.

Instant claim 2 recites the limitation “wherein the matrix-forming material...” There is insufficient antecedent basis for this limitation in the claim

Instant claims 2, 4, and 16 recite the limitation “Shore hardness.” The type of Shore measurement and its’ units is not specified in the instant specification.

The meets and bounds of instant claims 4, 5 and 16 are indeterminate because it is unclear if the limitation after “preferably” is required or not. For the purpose of examination against the prior art “preferably” is interpreted as being optional.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6, 7, 9, 10, 11, 12, and 14 are rejected under 35 U.S.C. 102(b) as being unpatentable over Okubo et al. (5480596)

Regarding **instant claims 1, 6, 7, and 10** Okubo et al. discloses an apparatus and method for producing a micro structured optical recording medium using the apparatus. The device comprises a roll stamper with an elastomer layer of predetermined hardness. Figure 2 shows a roll stamper (3) matrix (7) with a negative of the microstructure to be generated, a pressure roller (4) drivable over a surface for pressing the matrix onto the surface. The pressure roller and matrix are arranged so that when the roller passes over the surface the matrix executes a rolling movement between the roller and layer, so that the negative of the matrix faces towards the surface. An ultraviolet lamp (13) for accelerating the curing of a curable material is arranged so that when the pressure roller passes over the surface it (the pressure roller) accompanies its (the curable material) movement and acts on a part of the surface.

Regarding **instant claims 9 and 14**, Figure 1 shows a device (11) for applying the curable material to the matrix. Regarding **instant claim 11**, Okubo discloses a process for producing a micro structured surface including a resin layer a micro structured pattern that is to be transferred to the layer and a roll stamper (3) (Column 3, lines 17-24).

Regarding **instant claim 12**, the method disclosed by Okubo comprises a means for curing the resin layer (Column 3, lines 43-46).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flohr-Schmitt (DE 19613383).

The examiner received an oral translation of DE 19613383. A written translation has been requested.

The invention relates to a casting stamp and method for applying microstructures on an article. Figure 1 shows a matrix with a negative of the micro structured surface (16) and a pressure roller (12). (Column 6, Example 4). The pressure roller and matrix are arranged so that the when the roller passes over the surface the matrix executes a rolling movement between the roller and surface. The negative of the matrix is facing towards the surface (10). The invention makes it possible to microstructure planar surfaces as well as three dimensional surfaces (Column 2 lines 21-25). Regarding **instant claims 1, 6, 7, and 8**, a UV lamp is used to cure the material (Column 3 lines 39-59). Figure 4 shows a transparent die (36) with a transmission window in the UV-IR range (Column 7,

Example 6) above an irritation hardening material that is to be cured through irradiation of the matrix. The direction of the UV waves indicates a curing device mounted so that the curing of the curable material on the surface to be micro structured is effected by through irradiation of the matrix (36). Therefore it would be obvious to one having ordinary skill in the art to use the matrix (36) in Figure 4 in the design of Figure 1 or 2, in order to transmit UV radiation from a curing device, through to a surface allowing for continuous curing of the surface. **Regarding instant claims 2 and 4**, the casting stamp may have a Shore hardness between 12 and 75 in the cured state with the hardness being matched with the application (Column 4, lines 7-11). **Regarding instant claim 3**, Figures 1 and 2 show a roller (12) arranged so that when the tool is driven over the surface (10) the matrix is removed from the surface. **Regarding instant claim 9**, Figure 2 shows a device for applying the curable material to the matrix. **Regarding instant claims 10, 11, 12, 13, and 21**, Example 4 uses the tools in Figures 1 and 2 to generate a microstructure on a surface (10). Figure 4 shows UV curing by the tool the curable material on the surface (34) that can be micro structured. **Regarding instant claim 14**, Figure 2 shows a curable material being applied to the matrix by the tool in order to provide a surface to be micro structured. **Regarding instant claims 5, and 15**, Figure 3 shows an object (26) with a multiply curved surface, where a flexible casting stamp (25) generates a microstructure. Due to the flexible nature of the casting stamp (25) it can be positioned in the curved portion of the of the mold (22) (Column 7, Example 5). Refer above for instant claims 16-20.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARGARET BRODIE whose telephone number is (571)270-7713. The examiner can normally be reached Monday – Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-965-9865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARGARET BRODIE/
Examiner, Art Unit 4122

/Milton I. Cano/
Supervisory Patent Examiner, Art Unit 4122